

MAHARASHTRA STATE ELECTRICITY TRANSMISSION CO. LTD.
EHV (O&M) Circle Nagpur
CIN No – U040109MH2005SGC153646

Name of office	:	Office of the Superintending Engineer
Office address	:	EHV (O&M) Circle Nagpur 2nd floor Vidyut Bhavan Katol Road Nagpur
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No:-SE/EHV/O&M/CIR/NGP/T/1270

Date:- 16.05.2018

RFx No. 700008859

Sub: - SRM E-Enquiry for supply & installation of Automatic Voltage Regulator (AVR) for OLTC of Transformers at various sub-stations under EHV (O&M) Circle Nagpur.

Dear Sirs,

With reference to above subject, SRM E-Enquiry is invited for supply & installation of Automatic Voltage Regulator (AVR) for OLTC of Transformers at various sub-stations under EHV (O&M) Circle Nagpur, from the registered contractor's. The terms & Conditions are as follows:-

-: TERMS AND CONDITIONS:-

- 1) The two bid system should be followed for submitting the offers, Digitally signed online bids are submitted on MSETCL SRM E-tendering website i.e <https://srmetender.mahatransco.in>
- 2) The work completed along with supply of material to the consignee mentioned in this order within 30 days from the date of receipt of order.
- 3) Estimated cost :- Limited to Rs. 99120/- (Inclusive of GST @ 18%)
- 4) 5% amount against security deposit will required to be paid before affecting the supply. Security deposit will not be deducted from your bill in any case.
- 5) 100% Payment will be effected against delivery of material.
- 6) Packaging & Forwarding: - Packaging & Forwarding will be at the cost of supplier.
- 7) Rates:- Bidder should quote the rates in online mode in SRM E-tendering system only.
- 8) Validity of offer:- The validity of your quotation should be 3 months.
- 9) The quality of material should be as per specification (Annexure 'B') attached herewith.
- 10) GUARANTEE: - You should give guarantee of the work done against this work order, good quality & Workmanship must be guaranteed for best performance at least for 12months from the date of work done.
- 11) You will have to arrange all tools, plants, manpower etc. to carry out the work at your own cost.
- 12) You will have to provide all safety measures to your staffs while executing the work in sub-station.
- 13) Due date:- You should submit your offer / rates against this SRM E-Enquiry online only during period from till dt. 17.05.2018 to 23.05.2018
- 14) The Bidder if wants any clarification regarding any terms of condition, he should approach in writing to Under signed before quoting rates.
- 15) After due date no clarification will be given and the decision of undersigned will be final and binding to all the bidders quoting for said work.
- 16) Following documents should be enclosed along with your offer
 - a. Valid Electrical Contractor License.
 - b. Valid Goods & Service Tax (GST) registration certificate.
 - c. Copy of PAN card along with ITR for last financial year.
 - d. Valid Shop Act Registration/ Gram Panchayat NOC.
 - e. Work experience certificate of similar work executed.
- 17) Payment regarding EMD & Tender fees is to be made online only during sale period.
- 18) The right to place an order or to cancel without assigning any reason is reserve with undersigned.
- 19) In case of any dispute arising out of your contract, it will be in the jurisdiction of Nagpur Court only.

Sd/-
Superintending Engineer
EHV (O&M) Circle Nagpur

Copy to: - The Manager (F&A) EHV (O&M) Circle Nagpur

ANNEXURE "A"

Sub: - SRM E-Enquiry for supply & installation of Automatic Voltage Regulator (AVR) for OLTC of Transformers at various sub-stations under EHV (O&M) Circle Nagpur.

Sr No.	Particulars	Qty	Unit	Rate/unit
1.	Automatic Voltage Regulator (AVR) HSN Code - 85049010	3	EA	Rates in online mode in SRM E-tendering system only

Sd/-
Superintending Engineer
EHV (O&M) Circle Nagpur

ANNEXURE "B"

Features:

- Universal Power Supply 90-265V AC/DC Input
- 110V AC signal input
- 4 digit 7-segment LED to display Voltage
- Display accuracy $\pm 1\%$
- Optional 4-20mA signal outputs
- Optional MODBUS RTU protocol communication
- Optional digital inputs from OLTC along with indication (TAP Changer condition viz. Progress, Completed, Stuck)
- 2-Relays for controlling operation, 1-Relay for Under Voltage / Over Voltage & 1-Relay for Control Fail
- Auto, Manual & Software Relay Control mode for rise & low relay operation
- 2-way Isolation (up to 2.5KV AC for 60sec)
- 192(W) x 96(H) x 220(D) mm dimension
- IP 40 Panel Protection Level
- competitively priced Digital Indicator

Technical Specification

Power Supply:- 90-265V AC/DC

Input to AVR:- 110V AC from PT source

Input to TPI:- 1K ohms / Tap (any custom resistance per tap available)

Digital Inputs:- Isolated 24V DC signal from OLTC TAP Changer condition viz. Progress, Completed, Stuck

Accuracy:- $\pm 1\%$ of FSD

Display:- 0.56" 4 digits 7-segment LED & 0.56" 2 digits 7-segment LED

LED Indication:- Rise, Low, RR, LR, Under Voltage / Over Voltage, Control Fail, Auto / Manual, TAP Changer condition viz. Progress, Completed, Stuck

4-20mA signal output:- Optional up to 4 Nos. 4-20mA signal output (4mA corresponding to 0V AC & 20mA corresponding to 160V AC)

Relay:- Rise Relay, Low Relay, Under Voltage / Over Voltage Relay, Control Fail Relay (optional)

Communication:- RS232 / RS485 MODBUS RTU protocol Communication (optional)

Relay Rating:- 5A @ 250V AC or 5A @ 24V DC resistive load

Rise & Low Relay operation:- Single Pulse operation with 2 seconds (approx.) On-Time

Insulation Resistance:- $\geq 20M\Omega$ Between Earth to all terminal when measured with 500 V DC Insulation tester

Isolation:- 2500V, rms, AC between Power Supply terminal and signal input / output terminals for 60 Secs

Warm Up time:- 15 minutes (Min)

Dimension:- 192(W)x 96(H) x 220(D) mm

Panel Cutout:- 188(W) x 92(H)

Ambient Operating Temperature:- 0 to 50°C, 45 to 80% RH

Storing Temperature:- -10 to 60°C, 25 to 85% RH

Soak Test:- 4026Tx Instrument is powered for 24 hrs to simulate the normal operating conditions and the functions performed during this period

Panel Protection Level:- IP 40

Mounting:- Panel